

Petri Luosto

*Cassandra and the Unknown
World*

Cassandra

Class 1

Women

Cassandra, an astrobiologist, long blond hairs, blue eyes, athletic body

Hera, The Manager of the Colony, dark hair, blue eyes, slim

Penthesilea, a soldier, dark skin, large, dark hair, dark eyes and well trained body

Hippolyta, The Leader of the Soldiers, blond hair and green eyes

Iphito, a soldier, Asiatic appearance

Aegea, a soldier, brown hair and blue eyes

Otrera, a soldier, very blond hair, eyes dark and light brown (heterochromia)

Themis, a farmer

Rhea, a farmer

Phoebe, a farmer

Tethys, a farmer

Theia, a farmer

Ariadne, a toxicologist, biochemist, short, thin, dark hair and blue eyes

Erigone, a biochemist

Brizo, a biochemist

Manto, a biochemist

Theonoe, a biochemist

Arachne, an engineer, red hair, blue eyes, short and sturdy

Cyane, a mechanist

Daphne, a mechanist

Dryope, a mechanist

Arge, a mechanist

Aceso, a doctor and a biologist, Asiatic appearance

Artemis, a doctor and a biologist, dark hair, green eyes and pale skin

Gaia, a geographer, dark hair and green eyes

Men

Zeus, The Manager of the Colony, light brown hair, blue eyes, sturdy

Achilles, a soldier, blond hair and blue eyes

Heracles, The Leader of the Soldiers, dark hair, dark eyes, dark skin, the strongest person

Theseus, a soldier, amber coloured eyes and brown hair

Hector, a soldier, dark hair, blue eyes

Jason, a soldier, Asiatic appearance

Iapetus, a farmer

Cronus, a farmer

Coeus, a farmer

Oceanus, a farmer

Hyperion, a farmer

Dionysos, a biochemist

Icarius, a biochemist

Laocoon, a biochemist, dark hair, pale skin and dark eyes

Mopsus, a biochemist

Telemus, a biochemist

Daedalus, an engineer

Aristobulus, a mechanist

Philon, a mechanist

Dinocrates, a mechanist

Metagenes, a mechanist

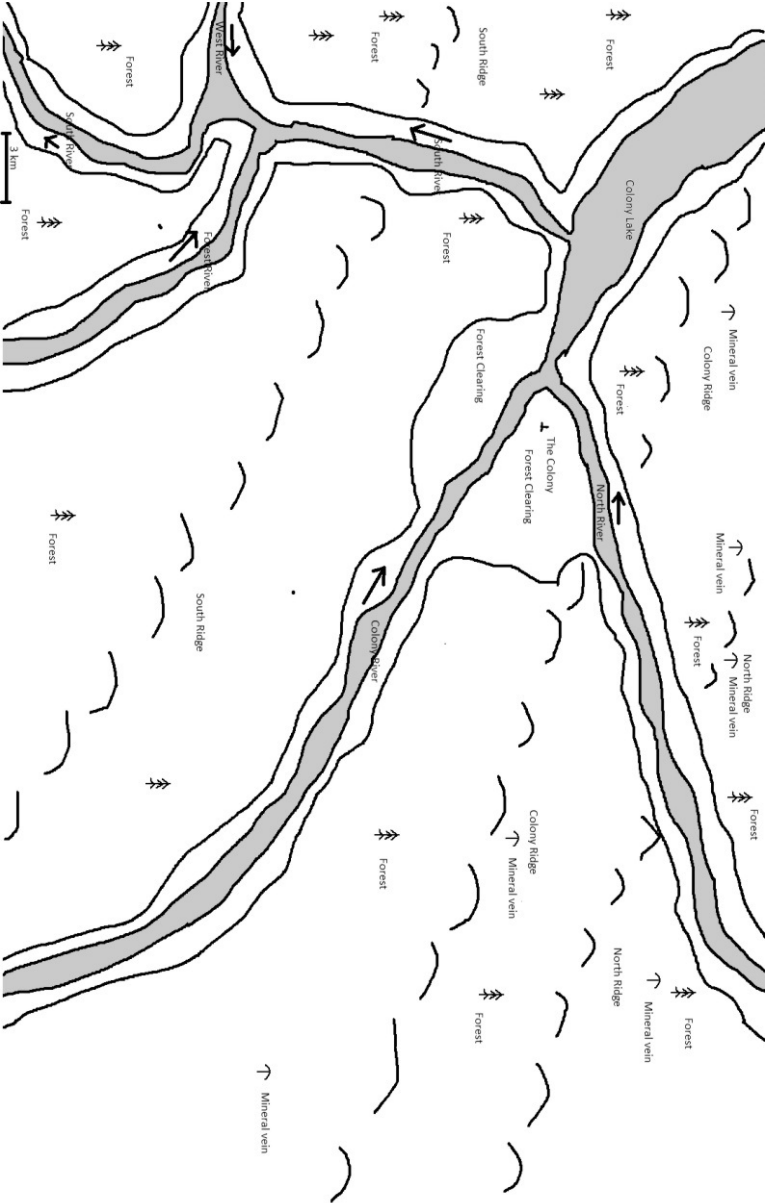
Asclepius, a doctor and a biologist, blonde hair, blue eyes and pale skin

Paeon, a doctor and biologist, dark hair, dark eyes and dark skin

Eratosthenes, a geographer, light brown hair, blue eyes and pale skin

Orpheus, a dead astrobiologist

Mr. Silva, a tracked robot for exploration



Somewhere very far away in the future...

Eden Prologue

It is an early morning. An astronomer David Smith sat in his office and turned the coffee maker on while he was watching the monitor in his office in Turku, Finland. He was a tall and a slender man who brushed his blonde hair. He was overseeing the Exoplanet Seeker satellite on his turn together with astronomers from Britain, Canada, Japan and Australia. He had a protected connection to the satellite's server which was in USA. The satellite orbited the Sun in the Earth's Lagrangian point in which Earth's gravitational pull equalled Sun's gravitational pull. The satellite had found dozens of new planets but up to this point they were either large gas giants like Jupiter or small rocky planets like Mercury which were too hot for the life based on carbon.

Smith oversaw the satellite since last night. He was tired and a bit irritated but his mind became clearer when he saw the picture of his wife Aino. He was a planet seeker astronomer who was ambitious and curious. He knew that a part of his job was being patient. He had personally found several planets orbiting different stars. Some of his discoveries have been confirmed but the rest still waited for the confirmation. Smith knew that the large telescopes on the surface of Earth were useful but their problem was the atmosphere which filtered away much of radiation and light from the stars. Discovering planets next to the stars was a very difficult task like seeing a flame of the candle next to the large spotlight with distance of a kilometre or so. It is easy to see to light from the spotlight but the same time it covers the light from the candle. It was much easier for the satellites to detect very weak sources of light or surfaces reflecting lights than observatories located on the surface of Earth.

At least one unknown planet orbited the star Kappa 1 Ceti. Smith knew that several large gas planets orbited that star from further distance. However, the gentle wobbling of the star

around the centre of gravity point indicated that there were probably more planet orbiting the star and those planets remained undetected. Smith had calculated that one possible planet orbiting the star would emerge between the star and Earth in any day now which would mean that they could evaluate the size of that planet. Smith had used a computer model on the Kappa 1 Ceti system and it supported the assumption that the planet exists. It would mean that they should check that possibility, Smith thought.

Smith hoped that the planet would come between the star and Earth so that they could also evaluate the composition of the planet's atmosphere. They knew the patterns of that star's light very well. When the planet comes between the star and Earth then some of the star light would travel through the planet's atmosphere and finally coming to Earth. The molecules on the planet's atmosphere would leave their marks to the light from the star.

The satellite could be able to analyse that mark when the original composition of the star light is known. However, there were three weaknesses in that method. First they should have a well-defined target. Secondly, there should have a known source of light behind the planet by the satellite's database. Thirdly, the source of light should be as close at the planet as possible that no other source of light could mess the star light from that source.

Smith made another pan of coffee. During the night he drank several pans of coffee to stay awake. Overseeing the satellite was very boring job because he had watched the monitors for hours. He had used his time to send text messages to the other astronomers. Other astronomers had answered him quite diligently except the Australian one.

Suddenly, there was an alarm on the monitor. The satellite had detected that the brightness of Kappa 1 Ceti had decreased slightly. Smith's first thought was if this is the planet he was looking for? He felt the conflict between being excited and

being sceptical. He felt that now he was fully awake and didn't need to cup of coffee. He remembered how he had predicted the existence of that planet according to the computer model and calculated when the planet will reveal itself. According to his calculation the planet should have revealed itself a day earlier. It would mean that there was something wrong in his calculations or the satellite just now detects the decreasing brightness of the star. Smith quickly looked at his calculations at the monitor but he couldn't find what was wrong.

Smith glanced at the monitor and at the same time the computer stated to define the discovery based on the planetary system model. The task for the computer was to calculate how well this discovery correlated with the model. The computer both calculated the model and analysed the light from the star. It took couple of moments for the computer to confirm the fact that the mysterious planet on the model actually existed. Smith knew that he has been correct on his calculations.

Smith realized that the computer was able to determine from the light the distance of the planet from the mother star and the composition of the planet's atmosphere. He noticed that the planet orbited the star on the so-called "habitable zone". According to the computer the composition of the planet's atmosphere was about 80% nitrogen and 20% oxygen. In addition to that the mass and the size of the planet were comparable to Earth.

That is not a certain observation, Smith thought. If the computer was correct on the analysis, then he had found the first planet which can maintain life. Smith knew that, this observation must be confirmed first. If other astronomers can confirm this observation, then he had indeed found the first planet which can maintain the life based on carbon like Earth can. If that is true can humans can theoretically live in there.

Smith knew perfectly well that this observation was very interesting. He checked that both the computer and the satellite worked as they should work in order to eliminate the

possibility that there was something wrong the equipment. Smith thought if the computer interpreted the light and the radiation from the star correctly. Smith noticed that other astronomers had send him messages congratulating him. However, the Australian astronomer didn't send a message while everyone else congratulated Mr. Smith. They have the same information which Smith saw on his monitor. Then Smith quickly replied on those messages and observed how the computer continued the validation calculations.

“Are you here? You were at home last time three days ago. I have clean clothes to you”, a female voice said. Smith turned around and he saw his wife, Aino Toivonen and he nodded. His wife much shorter than he, slender and she had a dark hair. He was also an astronomer but she was specialized on observing the Sun.

“Come and see what the satellite has discovered”, Smith said with enthusiastic voice and with his hand told Aino to look at the monitor.

“There is a planet orbiting Kappa 1 Ceti on the habitable zone and that planet can sustain life based on Carbon?”, Aino said with a clear surprise on her tone and asked: “He you confirmed that information?”

“I am doing that now”, Smith replied and stated: “It seems to be a genuine thing but it needs to be confirmed. If it will be confirmed, then I have found the first planet which can sustain life.”

“I am certain that the you would be remembered for a long time”, Aino said and then asked: “Have you though how people would reach that planet?”

“That planet is about 30 light years away. Reaching it would take centuries or even millennia. One option would be to send there a spacecraft and the allow the robots to bring up people in there”, Smith explained.

“You mean the “Embryo Space Colonization” -theory?”, Aino noticed.

“Yes. Reaching the level of technology that theory demands will probably take at least couple of centuries”, Smith wondered aloud.

“Why did you choose that theory? Wouldn’t generation ships be better option for long distance stellar exploration and colonization?”, Aino asked curiously.

“The trip would take too long by using generation ships, perhaps even millennia. At the same time, the needs of the passengers like food, water, oxygen and shelter should be provided. Living the whole life from birth to death would require a lot of mental spirit”, Smith explained.

“Would it be possible to extend the life span of the people?”, Aino inquired innocently.

“That is possible in theory but it will not remove the basic needs of the people”, Smith replied concisely.

“Is it possible to use cryonics to put people in sleep?”, Aino suggested.

“That could work in theory but waking them up would be difficult because water tend to crystalize when it freezes and it will break the cell structure”, Smith noted bluntly.

“How about travelling fast than light?”, Aino proposed, again innocently.

“Then we should deal with the Einstein’s theory of relativity. Remember that the energy is as much as the mass multiplied by

A seed ship arrived to the planet Eden 20 years ago landing the planet. The robots from that ship then built a colony in there. The spaceship itself carried both egg cells and sperm with it. The egg cells were fertilized. Now, 20 years ago the first class on humans inside that spaceship have reached the age of 16 years. They were brought up and educated by the robots. Now they will leave the spaceship to explore a strange new world.



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